

We claim:

1. A computer-implemented method for building a template specifying an emotional response to a content stream, the method comprising:

selecting a dictionary, the dictionary including a plurality of concepts, one concept identified as a maximal element, and a plurality of chains connecting the maximal element to each concept in the directed set;

selecting a set of intentional stance basis chains to form a basis;

selecting at least one concept in the dictionary;

creating a state vector in a topological vector space for each selected concept, wherein each state vector includes as at least one measure of how concretely the concept is represented in each chain in the basis; and

assembling the state vectors into a template; and

associating an action with the template.

2. A method according to claim 1, wherein associating an action includes assigning a threshold distance to the action so that the action will be performed when the content stream is within the threshold distance of the template.

3. A method according to claim 2, wherein:  
associating an action includes associating a plurality of actions with the template; and  
assigning a threshold distance includes assigning a unique threshold distance to each action so that the action will be performed when the content stream is within the assigned threshold distance of the template.

4. A method according to claim 1, wherein assigning an action includes assigning a plurality of actions to be performed when the content stream is within one of a plurality of threshold distances of the template, each action to be performed when the content stream is within a unique range of distances of the template.

5. A method according to claim 1, the method further comprising constructing a centroid vector for the template from the state vectors.

6. A computer-implemented method for comparing a template with a content stream to determine whether the content stream provokes an emotion response, the method comprising:

constructing the template in a topological vector space, the template including an  
5 associated action and threshold distance;  
constructing an impact summary for the content stream; and  
comparing the impact summary with the template.

7. A method according to claim 6, wherein comparing the impact summary with  
10 the template includes measuring a distance between the impact summary and the template.

8. A method according to claim 7, wherein measuring a distance includes  
performing a topological vector space transformation on the impact summary.

9. A method according to claim 7, the method further comprising performing the  
15 action associated with the template if the distance between the impact summary and the  
template is less than the threshold distance of the template.

10. A method according to claim 7, wherein measuring a distance includes  
20 locating a centroid vector for each of the template and the impact summary.

11. A method according to claim 10, wherein measuring a distance further  
includes measuring an angle between the template centroid vector and the impact summary  
centroid vector.

12. A method according to claim 7, wherein measuring a distance includes  
measuring a Hausdorff distance between the impact summary and the template.

13. A method according to claim 6, wherein constructing an impact summary  
30 includes iteratively constructing the impact summary for the content stream to track changes  
in the content stream.

14. An apparatus for building a template specifying an emotional response to a content stream, the apparatus comprising:

a computer;

a directed set stored in the computer including a plurality of concepts, one concept identified as a maximal element, and a plurality of chains stored extending from the maximal element to each concept;

an intentional stance basis including a subset of the plurality of chains;

for selected concepts in the directed set, a state vector in a topological vector space, wherein each state vector includes at least one measure of how concretely the concept is represented in each chain in the intentional stance basis;

a template including the state vectors; and

an action associated with the template.

15. An apparatus according to claim 14, the apparatus further including:

a threshold distance for the template; and

means for performing the action associated with the template when an impact summary of the content stream is within the threshold distance of the template.

16. An apparatus according to claim 15, wherein:

the threshold distance includes a plurality of threshold distances for the template;

the action includes a plurality of actions associated with the template; and

the means for performing the action includes means for performing one of the plurality of actions when the impact summary of the content stream is within one of the threshold distances of the template.

17. An apparatus for comparing a template with a content stream to determine whether the content stream provokes an emotion response, the apparatus comprising:

a computer having access to the content stream;

a template in a topological vector space stored in the computer, the template including an associated action and a threshold distance;

means for capturing an impact summary for the content stream; and

means for comparing the impact summary with the template.

18. An apparatus according to claim 17, wherein the means for comparing the impact summary with the template includes means for measuring a distance between the impact summary and the template.

5 19. An apparatus according to claim 18, wherein:  
the template includes a template centroid vector located from the state vectors; and  
the impact summary includes an impact summary centroid vector.

10 20. An apparatus according to claim 19, wherein the means for measuring a  
distance between the impact summary and the template includes means for measuring a  
Euclidean distance between the impact summary and the template.

15 21. An apparatus according to claim 18, the apparatus further comprising means  
for performing the action associated with the template if the distance between the impact  
summary and the template is less than the threshold distance of the template.

20 22. An apparatus according to claim 17, wherein:  
the impact summary uses a basis including a second subset of the plurality of vectors;  
and  
the apparatus includes a transformer for performing a topological vector space  
transformation on the impact summary.

25 23. A computer-readable medium containing a program operable on a computer to  
build a template specifying an emotional response to a content stream, the program  
comprising:

selection software to select a dictionary, the dictionary including a plurality of  
concepts, one concept identified as a maximal element, and a plurality of chains connecting  
the maximal element to each concept in the directed set;

selection software to select a set of intentional stance basis chains to form a basis;

30 selection software to select at least one concept in the dictionary;

creation software to create a state vector in a topological vector space for each  
selected concept, wherein each state vector includes as its components measures of how  
concretely the concept is represented in each chain in the basis; and

assembly software to assemble the state vectors into a template; and  
association software to associate an action with the template.

24. A computer-readable medium containing a program operable on a computer to  
5 compare a template with a content stream to determine whether the content stream provokes  
an emotion response, the method comprising:

construction software to construct the template in a topological vector space, the  
template including an associated action and threshold distance;

construction software to construct an impact summary for the content stream; and

10 comparison software to compare the impact summary with the template.

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